

**Botrychium californicum** sp. nov.

The largest of our species, with leaves 20–35 cm. across, the leaf of the preceding year usually long persistent. Roots fleshy, stout, fibrous: common stalk very short, 3–4 cm. long, subterranean; leaf-stalk 10–16 cm. long, stout, fleshy; leaf-blade 20–35 cm. wide, 15–25 cm. long, the three main divisions copiously tripinnate or often quadripinnatifid, the lower divisions more compound on the lower side of the base; segments 9–13 or more to each pinnule, obliquely oval, the larger more or less lobed, the margins crenate or eroded: sporophyl 15–25 cm. long, quadripinnate or more, on a stalk 30–45 cm. high.

This species was figured by D. C. Eaton, *Ferns N. A.* 1: *pl.* 20a (lowermost figure only) and called by him "*var. australe*" of his all-embracing *Botrychium ternatum*, the name *australe* coming from one of the smaller (Australian) species of the group, while this is one of the largest. It appears to be confined to northern California. Specimens have been studied as follows:

Sisson, Siskiyou County, 30 July, 1894, *M. A. Howe*; Sierra County, 1874, *Lehman*; Quincy, Plumas County, *Mrs. R. M. Austin* (type), *Mrs. C. C. Bruce*; Emigrant Gap, *A. Kellogg*; all in the collections at the New York Botanical Garden, which include the collections of Columbia University and those of the writer, now incorporated in a single series.

COLUMBIA UNIVERSITY,  
12 May, 1905.

## SHORTER NOTES

AMELANCHIER ARGUTA\* Nutt.—This species has been mistaken for *Amelanchier oligocarpa* (Michx.) Roem. It differs in smaller, round-oblong fruit, calyx-lobes ovate, acute, about 2 mm. long, leaves ovate-oblong, cuneate at both ends, finely serrate. *A. oligocarpa* has larger, pear-shaped fruit, calyx-lobes lanceolate, acuminate, 3–5 mm. long, leaves oblong, more coarsely serrate. Specimens examined:

The technical type is a sheet in the herbarium of Columbia University inscribed "*Amelanchier arguta* Nutt. Waychusett, Mass."

\**A. arguta* Nutt. in herb. Torrey; Britton, Man. 1066. 1905 [Ed. 2].

Most of the description was taken from my *no.* 1119, Cedar Swamp, Fairhaven, Vt., altitude 100 meters, May 14, 1898, and June 27, 1899, and *nos.* 1960 and 1964, Blueberry Hill Bog, Rutland, Vt.

*No.* 52d, O. A. Farwell, Keweenaw County, Mich. (Columbia University herb.) and a specimen collected by J. A. Morton, at Wingham, Ont. (Eggleston herb.) are of the same species.

This species seems confined to the cold swamps of low altitude, while *A. oligocarpa* is arctic-alpine.

W. W. EGGLESTON.

NEW YORK BOTANICAL GARDEN.

NATURE'S ENGRAFTING.—About two years ago while wandering over a cypress flat, I found *Pieris nitida* growing from the trunk of *Taxodium imbricarium*. The branch was in a healthy, vigorous condition and grew more than a foot from the ground, as perfect a specimen of engrafting as could be done by the hand of man.

The tree was on the outer edge of the flat. The undergrowth showed no indication of having been inundated for a year at least. A few yards away there were numerous trees (*Taxodium*) standing in water a foot or more in depth, each surrounded by a luxuriant growth of *Pieris*. In the course of time I found the flat perfectly dry, as is the way with these cypress ponds of the pine-barren districts. I lost no time in further investigating the matter. Imagine my surprise, on brushing aside the dense foliage to find many of the trees encircled by a luxuriant growth of the *Pieris*, like a green collarette, quite high from the ground and having no connection with it. In TORREYA of February, 1903, Mr. Roland M. Harper reported the peculiar habit of *Pieris phillyreaefolia* as seen by him in the Okefinokee Swamp climbing the *Taxodium*, explaining that it crept under the bark from the ground, and after ascending quite a height, branched out, having the appearance of a parasite. He also quoted Dr. Chapman's observations with regard to the same peculiar habit of this "make-believe" vine. There was no evidence of such a condition in this case. The plants had every appearance of having flourished and fruited for years. MRS. AUGUSTUS P. TAYLOR.

THOMASVILLE, GEORGIA.

A NEW GENTIAN FROM BOLIVIA. — *Gentiana dolichantha* Gilg sp. nov. Perennans. Radice?: rhizomate certe decumbente reliquiis foliorum evanidorum oblecto, apice folia paux laxa vel laxiuscule rosulata gerente: foliis lanceolatis vel linearilanceolatis, apice acutissimis, basi vix angustatis sed haud connectis, sub anthesi semper manifeste recurvatis, utrinque nitidis, subchartaceis, solemniter 3-nervatis: floribus 6-meris puniceis, in apice caulis erecti parce foliosi in cymam 3-floram dispositis, in axillis foliorum inferiorum semper solitariis, tenuissime longe pedicellatis, sub anthesi verisimiliter nutantibus: sepalis in parte  $\frac{3}{4}$  alt. in calycem campanuliformem leviter 10-angulatum connatis, lobis liberis lanceolato-triangularibus, acutissimis: corollae tubo cylindraceo vel anguste cylindraceo, superne paullo ampliato, lobis tubi vix  $\frac{1}{3}$  longit. aequantibus orbicularibus, breviter apiculatis.

Caule repente 8–12 cm. longo, parte erecta 17–25 cm. Foliis basalibus rosulatis quam cetera caulina haud majoribus, adultis 4–5 cm. longis, 4–5 mm. latis; internodiis 2.5–4, rarius usque 5 cm. longis. Pedicellis 1.5–4 cm. longis. Calycis tubo ca. 8 mm. longo, 5–6 mm. crasso, lobis 2.2–2.8 mm. longis, 2 mm. latis. Corollae tubo 2.2–2.3 cm. longo, 8–9 mm. crasso, lobis ca. 7 mm. diametro metientibus.

BOLIVIA: Pelichuco, 11,500 ped. s. m. (*Williams, n. 2489*. Flores maio 1902).

Species nova affinis *G. puniceae* Wedd., sed floribus majoribus longius tubulatis calyceque alte connato campanulato diversa.

ERNST GILG.

BERLIN.

A TRIO OF GRASSES NEW TO THE WEST INDIES. — Among the plants collected by Mr. W. E. Broadway, in Granada in 1904, is a specimen of *Polytrias praemorsa* Hack., secured at St. George's, growing in pasture land. This grass is native in Java, and its appearance as an introduction into the West Indies is rather interesting.

A word in reference to the nomenclature of this species may be appropriate here. In Hackel's treatment of the Andropogoneae (D. C. Monog. Phan. 6: 189), in the synonymy under his *P. praemorsa*, in reference to the *Andropogon diversiflorus* Steud. (Syn. Gram. 370), the following statement is made: "nomen specificum a me rejectum quia in speciminibus bene evolutis

spiculae omnes ♂, in macris tantum et raro pedicellatae hebetatae inveniuntur." Of course this is not a valid reason for discarding a name properly published, and cannot be countenanced. Immediately following his publication of *Andropogon diversiflorus*, and on the same page, Steudel describes another species, *Andropogon firmandus*, which Hackel also cites in the synonymy. For some reason unexplained, this specific name is not taken up, although tenable, and the name *praemorsa* adopted, first published by Steudel in the same work (*l. c.*, 409) under the genus *Pollinia*. Steudel cites no specimen as the type of this species but simply indicates that the plant came from Java. The description he gives certainly does not apply to the monotypic genus *Polytrias*, as described by Hackel, for a generic requirement of that genus is that the spikes shall be borne singly, and yet Steudel in the description referred to above distinctly states that in *Pollinia praemorsa* the spikes are in twos or threes. I am aware that Hackel follows his reference to this name with an !, but certainly if this is so the generic character of a single spike breaks down. Of course this question as to the name *praemorsa* really is of little importance, for the name to be used is *diversiflorus*, and the combination should stand as follows :

**Polytrias diversiflora** (Steud.)

*Andropogon diversiflorus* Steud., *l. c.*

A second member of the Andropogoneae, also, has made its advent into the West Indies. This is *Ischaemum rugosum* Salisb., a native of Asia. A specimen of this was obtained by Mr. A. H. Curtiss, at Madruga, Cuba, on November 24, 1904, *no.* 533. One other species of this genus, *I. latifolium*, is quite extensively found in the West Indies and on the mainland of South America.

The third introduction is from the New World, and is *Opisia stolonifera* Presl, a member of the Chlorideae, with monoecious spikelets, a native of Mexico. It was first secured by Dr. J. A. Shafer on dry soil, at Regla, Province of Habana, Cuba, April, 1903, *no.* 482; and it has now been again secured at Habana, on December 19, 1904, by Mr. A. H. Curtiss, *no.* 571.